

Carolina DREAMING

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Dr. Edward "Ed" A. Norfleet M.D.

A Legacy of Educational Excellence

To understand how a professorship named for a beloved University faculty member secures endowment funding less than a year after that individual's passing is to learn what the late Edward ("Ed") A. Norfleet, MD, meant to his department and institution.

At UNC, Norfleet's higher learning began in a setting far less conventional than a classroom. Hired as a North Carolina Memorial Hospital scrub nurse at 18, Norfleet spent his earliest days on campus observing procedural and patient care from the sidelines. Though his formal education — undergraduate ('66); medical student ('70); surgery intern and anesthesiology resident ('73) — minted him as a dyed-in-ram's wool product of UNC, the institution also taught Norfleet that invaluable learning existed beyond the classroom.

Professor of Anesthesiology Dr. Ann Bailey first met Norfleet as a resident in the mid-1980s. She recalls his persistent message to those he taught that they should trust what they had studied and observed in learning to apply their clinical knowledge:

"One of my earliest memories of him was rotating on [Cardiothoracic] Anesthesia service while he was attending. At a point while I was handling a procedure, he left the room when I thought he would clearly step in. When he didn't return to assist, I understood his confidence in me. Ed Norfleet was always nearby and had the backs of those he taught. Our confidence grew because of his own belief that we could handle what we were given."

Now a Department member of 30+ years, Bailey sets Norfleet apart from colleagues who've surrounded her over the decades: "I don't know of any Department faculty member who was requested more by patients than Ed Norfleet. He treated a patient not just as a case, but as a person."

Professor of Anesthesiology Dr. Anthony "Tony" Passannante also knew Norfleet as both a former resident and on faculty. Norfleet's consistent manner of foregoing hierarchy amongst all levels of institutional employees stands out amongst Passannante's memories of his long-time mentor and colleague.

"Norfleet was the one who instituted the concept of 'family' within our Department. Everyone was valued equally as members. His framework for interacting with the world was to see people's innate goodness. He cared for others more than he cared about his title in medicine."

Only four months after Norfleet lost his hard-fought battle with pancreatic cancer in October 2010, the Edward A. Norfleet, MD, '70 Distinguished Professorship Fund had raised \$700,000+ in direct donations and pledges. By October 2014, the Department had chosen the faculty member to fill the endowed professorship, and in June 2015, Residency Program Director and Vice Chair for Education Dr. Harendra Arora was honored as the first Edward A. Norfleet, MD, '70 Distinguished Professor in Anesthesiology.

Norfleet's son and Chapel Hill church pastor, Greg, conveyed his family's delight that Ed Norfleet's spirit in academic medicine would be represented so well: "Dad would have loved that Dr. Arora was chosen. Dr. Arora brings much knowledge and skill to practicing and teaching, but what strikes me most about him is his heart of humility. My father's vision was that it took a humble heart for residents to be rightly trained, and my family has every confidence that Dr. Arora will help fulfill it."

Dr. Harendra Arora

Preserving Norfleet's Spirit

Residency Program Director and Vice Chair for Education Dr. Harendra Arora is a humble, soft-spoken and compassionate, yet fiercely committed and focused individual. In June 2015, UNC Department of Anesthesiology hosted a ceremony honoring Arora's naming as the first Edward A. Norfleet, MD '70 Distinguished Professor in Anesthesiology. Chairman Dr. David Zvara affirmed Arora's dedication to educational interests as a sign the physician-scholar would advance the late Norfleet's commitment to excellence in academic anesthesiology.

"I know Dr. Norfleet would be extremely proud that Dr. Arora is the first Norfleet Professor. Harendra Arora embraces the entire residency experience and works diligently to ensure our residents are provided the greatest opportunity for success. He cares about what's going on in each resident's life and with their family. Under his guidance, our program has expanded the educational opportunities available to our residents, such as higher numbers of residents presenting at meetings. This past year alone, 26 clinical anesthesia residents presented their scholarly work at the American Society of Anesthesiology (ASA) annual meeting. That's just amazing to me."



Arora patient care teaching CA-1 Brian Specht (left) & Regional Anesthesia Fellow Adam Roth (right)

At University of Arkansas for Medical Sciences (UAMS), Arora's mentors saw a promising academic anesthesiology leader in their chief resident and fellow. Directly out of training, Arora was appointed Acting and Assistant Chief of Anesthesiology at the Central Arkansas Veterans Healthcare System. During this time, he received UAMS' Golden Apple Award, bestowed annually to an outstanding College of Medicine educator. An additional two years as Cleveland Clinic Foundation faculty made a top-tier academic medical center Arora's most natural professional habitat.

Now four years into his departmental roles in education, Arora often recalls his own training days in steering residents toward becoming experts in anesthesiology over just four years.

"Our anesthesiology program at UNC shines because of our dedicated faculty and our motivated residents that continue to push the limits. There is no room for complacency and we must constantly challenge ourselves in securing our place amongst the nation's top training programs."

"Being named as the first Norfleet Distinguished Professor is a great honor. What makes this special is the connection this brings with the legacy and the vision of Dr. Ed Norfleet. He wanted our residents to have every learning opportunity that would help them be well-rounded and highly successful physicians. The Norfleet fund opens up some wonderful opportunities for our residents — things that have been on our wish list but we weren't able to achieve because of budgetary limitations."

Fostering Wellness Touches All



Committee members, L to R: Susie Martinelli, Lacey Straube, Daniel Rosenkrans, Megan Henley, Amy Penwarden, Cam Enarson, Jenny Eskildsen, Kelly Bruno, Christo Frangopoulos, Vishal Dhandha.

At a 2015 Society for Education in Anesthesia (SEA) meeting, Associate Residency Program Director Dr. Susan Martinelli was struck by an anesthesiologist's presentation on minimizing the impact of adverse patient care incidents on residents in clinical settings. Martinelli applied the thinking to her own trainees, recognizing the national attention on "wellness" in medicine aimed at developing coping skills and resilience. Back at UNC, she advanced the idea with departmental leadership, exploring wellness initiatives not only within the residency program, but also extending to the entire Department.

The Department's new parent wellness committee first met in June 2015. To date, they have hosted several "Wellness Wednesday" Grand Rounds, including: 1) UNC Professor of Psychiatry Dr. Samantha Meltzer-Brody ("Generalized Wellness"); 2) UNC Professor of Psychology Dr. Barbara Fredrickson ("Positivity"); and 3) CRNA Rodrigo Garcia and his wife Claudia on recovery from workplace addiction. By July, several wellness subcommittees — Faculty, Resident, CRNA and Support Staff — had formed and begun addressing areas of group-specific stress, as well as larger departmental goals such as preserving a team-building workplace environment.

The residency wellness subcommittee has prioritized identifying factors challenging trainees' ability to maintain a work-life balance in the face of long clinical hours, such as ever-increasing educational responsibilities. Addressing administrative frustrations, the subcommittee worked with program leadership to enact didactic changes, including the replacement of a waning resident lecture series with independent study.

The Edward A. Norfleet MD '70 Distinguished Professorship fund is supporting newly initiated class-specific weekend retreats to promote bonding and stress relief. The first-year residents went to Asheville, NC, in November 2015, and the other three classes are planning their weekends for Spring 2016.

In Martinelli's words: "As anesthesia providers, we witness the devastating effects of disease on a regular basis. We envisioned initiating departmental wellness programming to help our residents develop the capacity to recover more quickly from workplace challenges and stressors. Preserving trainee wellness is critical in deterring burnout, yet I'm thrilled we took wellness promotion to an all-Department level. Teaching ways to recognize personal and others' stressors within a team-building environment truly applies to all Department members."

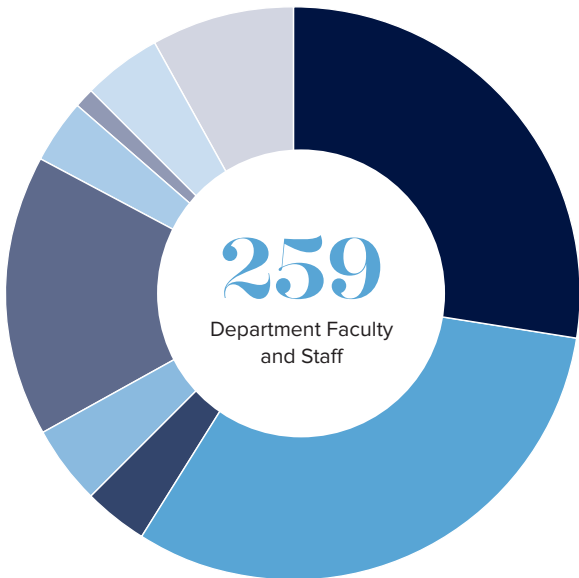
NUMBERS AT A GLANCE*

UNC Department of Anesthesiology



Chairman's Note

David A. Zvara, MD
Professor and Chair



Faculty	71	Interns	11	PSQI	3
CRNAs	82	Residents	42	Research	11
NPs/RNs	9	Fellows	9	Admin Staff	21

The UNC Department of Anesthesiology is pleased to welcome our new readership to the first issue of "Carolina Dreaming." This newsletter revives a tradition that began in the 1990s, yet our new name emphasizes our Department's pride in providing anesthesia care within one of the nation's top-tier academic medical centers.

Twice annually, we will share our dedicated members' stories, our metrics in medicine, our educational, didactic and research initiatives, and our newsworthy events. Our summary update will inform friends within the institution and field of the milestones the Department has reached along the way. For example, in October 2015, we sent 26 residents, our largest group ever, to the annual American Society of Anesthesiologists meeting. We've also experienced significant growth in faculty and CRNAs in only 10 years' time, more than doubling the size of the department!

We also want our readers to better understand how we facilitate superior anesthesia care across UNC Health Care System (UNC HCS). Over the past two decades, we've integrated new technologies into clinical practice via the Department's Anesthesiology Information Management Systems (AIMS). As AIMS undergoes long-term growth, our updates will impart how we align ourselves with changes at the network level. In early 2014, UNC HCS underwent patient data consolidation with the launch of EMR technology (Epic@UNC) network-wide. AIMS has now aligned our computerized anesthesia records with Epic@UNC across UNC HCS' eight-affiliate network. We're so lucky to have Lakhesh Khullar, Lisa Crabtree, Zeno Pfau, Laura Niday, CRNA, Karla Moore, CRNA, and Ravindra Prasad, MD, leading us in this area. We're proud that our entering CA-1 residents received tablets fully loaded with access to both AIMS and Epic@UNC data.

Carolina Dreaming also celebrates our members' pinnacle moments. In June 2015, Dr. Harendra Arora was appointed the Department's first Edward A. Norfleet, MD '70 Distinguished Professor in Anesthesiology. By the same token, we also recognize those who are beginning a new chapter after many years of upholding our Department's strength in academic anesthesiology. When you see them around, we hope you will extend well wishes to Drs. David Ballard, Warner ("Luke") Lucas, Fred Spielman, William Blau, Linda Georges, Eileen Tyler, Jay Anderson and Vincent Kopp, all of whom retired in the past two years.

The UNC Department of Anesthesiology proudly operates in an exciting era within the institution and healthcare system we support. The team-mindedness of our Department members makes us confident we are caring for our patients and educating aspiring physicians effectively, and we look forward to sharing with you the highlights that reflect this spirit.

69,810 Patient Visits

10

Facilities

44

Operating Rooms

7

GI Rooms

11

Procedure Rooms

26

ICU Beds

12

Pain Exam/
Treatment Rooms

* As of February 2016

CRNA Spotlight

2nd Annual UNC CRNA Anesthesia Meeting

UNC Department of Anesthesiology is pleased to host its “2nd Annual UNC Anesthesia Spring Meeting” on Saturday, April 2nd, from 7:00 AM - 4:30 PM at the William and Ida Friday Center for Continuing Education in Chapel Hill. For the second consecutive year, this refresher course on current research relevant to the anesthesia practice is organized entirely by UNC Health Care CRNAs! Offered as a CEU meeting to statewide CRNA practitioners, this year the meeting adds two guest CRNAs to the roster in addition to UNC CRNA speakers. This meeting will provide up-to-date information aimed at improving quality and safety in caring for surgical patients requiring anesthesia.

UNC Health Care System CRNA and 2015 meeting organizer Lynn Macksey oversaw UNC HCS CRNA efforts to establish this first-time CEU for anesthesia practitioners last year. As she recalls: “Our first annual meeting was quite a success. We were so pleased with the ability to offer an outstanding and diverse venue for CRNAs.” Looking ahead to how organizers can build on the successes of 2015, this year’s meeting organizer Julie Lowery, CRNA, adds, “It is with great pleasure that the CRNAs at UNC can continue to offer a fantastic meeting. We pride ourselves on our expertise as well as the anesthesia knowledge we can share.”

This year’s meeting has been structured to offer participants seven CE credits and seven 60-minute lecture segments. Register online at www.med.unc.edu/anesthesiology.



Positivity in the Workplace

CRNA Debbie Kernick

UNC Kenan Distinguished Professor of Psychology and internationally renowned scholar Dr. Barbara Fredrickson has published conclusive science on momentary, yet sustained positive emotions as key to the continuum of individual health and well-being. As the Department’s December 2015 “Wellness Wednesday” Grand Rounds lecturer (“Positivity Resonates”), Fredrickson invited Department members to consider how the individual pursuit and day-to-day practice of positivity might also enable them to better function within a team-focused, dynamic work environment.

When Fredrickson inquired of attendees post-lecture where they might identify displays of positivity within the Department of Anesthesiology workplace, Professor of Anesthesiology Dr. David Hardman readily responded. “I immediately thought of Debbie Kernick, and no doubt, many others did as well. Healthcare can be a challenging and stressful environment, but whenever I encounter Debbie at work, she has a singular gift of always making you feel a whole lot better, with her cheerful greeting and signature smile. She is genuine, warm, and her optimism is infectious. And that puts a lift in your step and carries you through the day.”

Kernick, a UNC Health Care CRNA of almost 17 years, is known for her quick smile and affirming manner of engaging colleagues and patients alike throughout her workday. As she sees it: “I find it much easier to try to be positive than negative on a daily basis. People are much more receptive to you and if you greet people with a smile, it is almost contagious!”



CRNA Debbie Kernick & Professor of Anesthesiology Dr. Priya Kumar administering patient care.

RESIDENT UPDATE

As we near completion of our Anesthesiology training at UNC, we really appreciate the strength of our clinical instruction. Our faculty take the time every day to thoughtfully teach us, and not simply because it's part of their job. They truly care about our education and want to see us become successful anesthesiologists.

The Consortium of Anesthesiology Patient Safety and Experiential Learning (CAPSEL) simulation program has been such a valuable part of our education. UNC's skills-trained team in simulation education has greatly enhanced the quality of our simulation experience by allowing us to debrief, reflect on our performance and improve upon our critical event resource management.

In 2015, three CA-2s scored in the top 10% nationally on the Basic ABA Exam!

Our didactics are also very well-rounded, providing in-depth learning about routine clinical situations to complement what does not commonly arise in the OR. Whether we're next off to fellowship training or clinical practice, the Department ensures we are well prepared for our careers ahead.

As interviewing medical students, we three remember observing how Department members truly cared about one another. Four years beyond these first impressions, we've watched this reinforced time and again in an environment where fostering wellness is valued. The Department's recent formation of a Wellness Committee, which focuses on initiatives to support all departmental members, is just one way the Department looks out for its own. We've felt lucky to be a part of its start-up.

The greatest strength of our department is its people. Residency has taught us the value of being surrounded by dependable, conscientious colleagues. As a part of the UNC Department of Anesthesiology, someone is there to support you both in times of success and when things are tough. UNC was always our first choice for residency, and we would each make that same choice if we had it to do over again.

Go Heels!
- The Chief Residents



From L to R: Amy Penwarden, Ben Judd, Jenny Eskilden

53 Residents in Training, 31 Medical Schools Represented!

- Boston University School of Medicine
- Brody School of Medicine
- Creighton University School of Medicine
- Eastern Virginia School of Medicine
- Georgetown University School of Medicine
- Indiana University School of Medicine
- Loyola University of Chicago, Stritch School of Medicine
- Medical College of Georgia
- Medical College of Virginia
- Medical University of South Carolina
- Northwestern University
- Southern Illinois University School of Medicine
- Texas A&M Health Science Center
- Texas Tech University School of Medicine
- University of Alabama
- Tufts University School of Medicine
- University of Chicago
- University of Colorado
- University of Florida
- University of Maryland
- University of Michigan
- University of Missouri-Columbia
- University of North Carolina at Chapel Hill
- University of Oklahoma
- University of Texas Medical Branch
- University of Texas at San Antonio
- University of Virginia
- University of Washington
- University of Wisconsin School of Medicine
- Wake Forest University School of Medicine
- Wright State University Boonshoft School of Medicine

2015 Featured Publications, Awards & Presentations

ABSTRACTS

McEvoy M, Hand W, **Stiegler MP**, et al. A Smartphone-based Decision Support Tool Improves Adherence to Guidelines for Managing Regional Anesthesia in the Patient Receiving Antithrombotic or Thrombolytic Therapy. *Anesthesiology*. 2016 Jan;124(1):186-98. doi: 10.1097/ALN.0000000000000885.

Hayden P, Kirby, MD, Timothy P. Rohman, MD, **Robert S. Isaak, DO, Lyla Hance, MPH, Hong J. Kim, MD, Lavinia M. Kolarczyk, MD**. Enhanced Recovery After Surgery (ERAS) clinical pathway for patients undergoing pancreatic surgery decreases hospital length of stay. Best of Abstract: Clinical Science session. American Society of Anesthesiologists Annual Meeting, San Diego, CA, October 2015.

Isaak R, Stiegler M, Martinelli S, Kolarczyk L, Arora H. Mixed-fidelity Simulation for Assessment of ACGME Milestones and ABA APPLIED Exam Preparation. American Society of Anesthesiologists Annual Meeting, San Diego, CA, October 2015.

Kirby HP, Rohman TP, **Hance L, Isaak R**, Kim HJ, **Kolarczyk LM**. Enhanced Recovery After Surgery (ERAS) clinical pathway for patients undergoing pancreatic surgery decreases hospital length of stay. American Society of Anesthesiologists Annual Meeting, San Diego, CA, October 2015.

Rohman TP, Kirby HP, **Hance L, Isaak R**, Kim HJ, **Kolarczyk LM**. Enhanced Recovery after Surgery (ERAS) clinical pathway for pancreatic surgical patients decreases unnecessary blood product administration. American Society of Anesthesiologists Annual Meeting, San Diego, CA, October 2015.

Stiegler MP, Gaba DM. Invited Editorial: Decision-Making and Cognitive Strategies. *Simulation in Healthcare*. 2015 Jun; 10(3): 133-8. doi: 10.1097/SIH.0000000000000093.

Hu J, Kessler RC, **Bortsov AV**, Battles SR, Peak DA, Jones JS, Swor RA, Domeier RM, Lee DC, Rathlev NK, Hendry PL, **McLean SA**. Evaluating musculoskeletal pain pathogenesis in the aftermath of motor vehicle collision in a multi-dimensional context. American Pain Society Annual Meeting, Palm Springs, CA, May 2015.

Hu J, Bollen KA, Lane ST, **Bortsov AV**, Peak DA, Jones JS, Swor RA, Domeier RM, Lee DC, Rathlev NK, Hendry PL, **McLean SA**. Evaluation of the influence of stress-induced pain vulnerability and sociodemographic characteristics on acute pain after a motor vehicle collision using structural equation modeling. American Pain Society Annual Meeting, Palm Springs, CA, May 2015.

Bortsov AV, Velilla MA, Damiron K, Pearson C Jones JS, Hendry PL, Kurz MC, **McLean SA**. Vitamin D deficiency is associated with worse overall pain outcomes over

time among African Americans experiencing motor vehicle collision. American Pain Society Annual Meeting, Palm Springs, CA, May 2015.

Lateef B, **Liu AY, Hu J**, MO Martel, RR Edwards, Swor RA, Peak DA, Jones JS, Rathlev NK, Lee DC, Domeier RM, Hendry PL, **McLean SA**. Pain Catastrophizing as a Predictor of Opioid Administration in Patients Presenting to the Emergency Department (ED) After Motor Vehicle Collision (MVC). American Pain Society Annual Meeting, Palm Springs, CA, May 2015.

Mauck MC, Liu AY, Bortsov AV, Jones S, Hwang J, Williams FN, Shupp JW, Karlinski T, Smith DJ, Krishnan A, Wesp B, Gellatly M, Cairns B, **McLean SA**. Predictors of pain severity after major thermal burn injury vary according to phase of burn wound healing. American Pain Society Annual Meeting, Palm Springs, CA, May 2015.

Villard MA, Beaudoin FL, Hu J, Orrey D, Peak DA, Jones JS, Swor RA, Domeier RM, Lee DC, Rathlev NK, Hendry PL, **McLean SA**. Few individuals at high risk of persistent musculoskeletal pain after motor vehicle collision receive early psychological or physiotherapy intervention. American Pain Society Annual Meeting, Palm Springs, CA, May 2015.

Liu AY, Hu J, **Platts-Mills TF**, Lateef B, Qadri YJ, Wang HE, Velilla MA, Pearson C, Zimny E, Lewandowski C, Hendry PL, Damiron K, Domeier RM, Kaushik S, Feldman JA, Jones JS, Villard MA, **McLean SA**. Education status is not associated with opioid medication receipt among African American emergency department patients with acute pain. American Pain Society Annual Meeting, Palm Springs, CA, May 2015.

MANUSCRIPTS

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Semin Cardiothorac Vasc Anesth. 2015 Nov 29. pii: 1089253215616498. [Epub ahead of print]

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Linnstaedt SD, Walker MG, Parker J, Yeh E, Sons RL, Zimny E, Lewandowski C, Hendry PL, Damiron K, Pearson C, Velilla MA, O'Neil BJ, Jones J, Swor R, Domeier R, Hammond S, **McLean SA**. microRNA circulating in the early aftermath of motor vehicle collision predict persistent pain development and suggest a role for microRNA in sex specific pain differences. **Mol Pain**. 2015 Oct 24;11(1):66. doi: 10.1186/s12990-015-0069-3.

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Brookes CD, Turvey TA, Phillips C, **Kopp V**, Anderson JA. Postdischarge Nausea and Vomiting Remains Frequent After Le Fort I Osteotomy Despite Implementation of a Multimodal Antiemetic Protocol Effective in Reducing Postoperative Nausea and Vomiting. *Journal of Oral & Maxillofacial Surgery*. 2015 Jul;73(7): 1259–1266.

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Kopp VJ, Koenig MW. Recommendations for perioperative oxygenation: Re: "Perioperative use of oxygen: variabilities across age" Habre and Peták, 113 (suppl 2): ii26-ii36 doi:10.1093/bja/aeu380. *British Journal of Anaesthesia:* E-pub 2015 Feb 4.

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GRANTS AND GRANT FUNDING SALARY SUPPORT

Samuel McLean: "Influence of PTSD Symptoms on Chronic Pain Development after Sexual Assault" Award Number: R01AR064700. Sponsors: NIAMS, NINDS, OD, NINR, NIMH, NICHD. Dates: 2014-2019

Marjorie Stiegler, "Decision Support to Prevent Premature Closure and Delayed Diagnosis" Sponsor: Educate Enrich and Enable Fund of the GKCCF. Amount \$100,000. Dates: Sept 2015 – Sept 2017

Samuel McLean, Adeola Keku (Funded): "Diversity Supplement to "Influence of PTSD Symptoms on Chronic Pain Development after Sexual Assault"". Award Number: 3R01AR060852-04S1. Sponsors: NIAMS, NINDS, OD, NINR, NIMH, NICHD. Dates: 09/01/15-08/31/16

Marjorie Stiegler, Candra Bass, Harendra Arora, Priya Kumar, Bilal Lateef (CA-1): "Simulation-based

Central Line Insertion Course to Reduce Central Line-Associated Complications." Recommended for \$50,000 in funding through the IHQI Seed Grant program. Dates: 7/1/15 – 6/30/16

Bobby Wunnava: 2015-2016 Medtronic Fellowship Grant notification. Amount \$15,000. Dates 7/1/15 – 6/30/16

Samuel McLean, Sarah Linnstaedt: "The Influence of MicroRNA in Chronic Pain Development." Sponsor: Mayday. Dates: 6/1/2014-5/31/2017

Samuel McLean: "The HELP PAIN Trial: Healing with Venlafaxine after motor vehicle collision." Sponsor: Mayday. Dates: 12/8/2010 – 12/31/2016

Samuel McLean: "Applying the Biopsychosocial Model to Post-MVC Pain Development in African Americans" Award Number: R01AR060852 Sponsor: National Institute of Arthritis Musculoskeletal Skin Disease. Dates: 09/15/2011 – 08/31/2016

Blair Herndon: UNC Institute for Healthcare Quality Improvement Seed Grant. Awarded April 15, 2015.

Sarah Linnstaedt, Andrey Bortsov: "Grant Funding Salary Support for Co-Investigators: Determination of Neurosteroid Gene Variants That Influence Chronic Pain and PTSD Development Following Motor Vehicle Collision in African Americans." Sponsor: Department of Veteran Affairs. Dates: 09/01/2014-8/31/2015

INVITED PRESENTATIONS

Christopher Howard, Sally Stander. Medically Refractory Phantom Limb Pain Temporarily Responds to Continuous Peripheral Nerve Blockade. ASRA Pain Meeting, Miami, FL, November 21, 2015.

Kumar PA. PBLD: Keeping Coronary Stents Patent in Patients. American Society of Anesthesiologists, San Diego, CA, October 26-27, 2015.

Morgan R. Marino, MD, **Lavinia Kolarczyk, MD.** Paradoxical Air Embolism to the Left Anterior Descending Coronary Artery Through an Undiagnosed Patent Foramen Ovale, October 26, 2015.

Low A, McFarlane C, **Kumar PA.** Intraoperative pulmonary embolus in a patient presenting for posterior spinal fusion. American Society of Anesthesiologists, San Diego CA, October 24-28, 2015.

Willie C, Foster J, **Barrick B, Kumar PA,** Bhowmick D, **Williams J.** Management of Undiagnosed Tracheal Bronchus Variant During 2-stage Anterior/Posterior Spinal Fusion. American Society of Anesthesiologists, San Diego CA, October 24-28, 2015.

Morgan R. Marino, MD, H. **David Hardman, MD, MBA.** Systemic Anticoagulation with Argatroban in a Patient with Suspected Heparin Induced Thrombocytopenia for Endovascular Aneurysm Repair. October 24, 2015.

Rob Isaak. University of Kentucky Department of Anesthesiology, Visiting Professor/Grand Rounds, August 3rd-4th, 2015.

James Krakowski. Regional Anesthesia: Application in Plastic Surgery. UNC Plastic Surgery Grand Rounds, June 24, 2015.

Rob Isaak. Blood Conservation and Coagulation Management . Visiting Professor/Grand Rounds, Meijer Heart and Vascular Institute, Grand Rapids, MI, June 16-17, 2015.

Sam McLean. Pathogenesis of pain and psychological sequelae after trauma exposure. Invited Speaker, McGill University School of Medicine, June 4, 2015.

Hayden P. Kirby, Tim Rohman, Ryan Bialas, **Rob Isaak, Lyla Hance,** Hong J. Kim, **Lavinia M. Kolarczyk.** Enhanced Recovery after Surgery (ERAS) clinical pathway for patients undergoing pancreatic surgery decreases hospital length of stay. George F. Sheldon Resident Research Symposium, second annual meeting, Chapel Hill, NC, May 15, 2015.

Kirby, Hayden P, **Harker, Elsje.** Atypical post-dural puncture headache complicated by a sub-dural hematoma in an unidentified dural puncture. Society of Obstetric Anesthesiology and Perinatology 47th Annual Meeting, Colorado Springs, CO, May 13-17, 2015.

Vellanki S, Mayer D, Claar S, Smith KA. A Multidisciplinary Care Pathway for the Evaluation of Postpartum Headache. Society of Obstetric Anesthesiology and Perinatology 47th Annual Meeting, Colorado Springs, CO, May 13-17, 2015.

Eskildsen J, Smith KA. Labor Analgesia in a Patient with Paroxysmal Nocturnal Hemoglobinuria Requiring Intrapartum Anticoagulation. Society of Obstetric Anesthesiology and Perinatology 47th Annual Meeting, Colorado Springs, CO, May 13-17, 2015.



Vice Chair for Research Dr. Sam McLean and former resident Dr. Goonjan Shah at the 2014 ASA Annual Meeting.

Upcoming Events

April 2

2nd Annual UNC CRNA Anesthesia Spring Meeting
William & Ida Friday Center for Continuing Education (Chapel Hill, NC)

April 23

Resident Day Transition to Practice Seminar & Resident Symposium
William & Ida Friday Center for Continuing Education (Chapel Hill, NC)

May 20-27

Association of University Anesthesiologists/International Anesthesia Research Society (AUA/IARS) 63rd Annual Meeting
Hilton San Francisco Union Square (San Francisco, CA)

June 11

Resident & Fellow Graduation Ceremony:
George Watts Hill Alumni Center (Chapel Hill, NC)

June 22-25

29th Annual Carolina Refresher Course
"Update in Anesthesiology, Pain & Critical Care Medicine"
Kiawah Island, SC

September 17

9th Annual UNC-Duke-Wake Forest Pediatrics Anesthesiology Conference
William & Ida Friday Center for Continuing Education (Chapel Hill, NC)

September 23-25

North Carolina Society of Anesthesiologists Annual Meeting
Charleston Marriott (Charleston, SC)

September 30 - October 1

Pediatric Pain Management Conference
Boston Children's Hospital CME Department